IN THE CLAIMS:

Claim 1 (Currently amended) A method for storing a holographic interference pattern, comprising the steps of:

computing the interference pattern based on a mathematical description of an object; and

forming a medium including the interference pattern to modify incident light so that the modified incident light includes a holographic image of the object, wherein the forming includes printing the computed interference pattern on a printable medium.

Claim 2 (Original) The method of claim 1, comprising:

the step of generating the holographic image by directing at least one beam of light onto a surface of the medium to modify the beam of light with the interference pattern, the modified beam comprising the holographic image.

Claim 3 (Original) The method of claim 2, wherein the light is coherent.

Claim 4 (Original) The method of claim 5, wherein the step of computing uses quantum electrodynamics.

Claim 5 (Original) The method of claim 3, wherein at least part of the medium is light-permeable.

Claim 6 (Original) The method of claim 4, further comprising:

partitioning the interference pattern; and

representing each partition as a weighted sum of basis interference patterns.

Claim 7 (Canceled)

Claim 8 (Currently amended) Apparatus for storing a holographic interference pattern, comprising:

means for computing the interference pattern based on a mathematical description of an object; and

means for forming a medium including the interference pattern to modify incident light so that the modified incident light comprises a holographic image of the object, wherein the forming means is a printer.

Claim 9 (Original) The apparatus of claim 8, further comprising means for generating the image using the medium and at least one light source.

Claim 10 (Original) The apparatus of claim 9, wherein the light source emits coherent light.

Claim 11 (Original) The apparatus of claim 10, wherein at least part of the medium is light-permeable.

Claim 12 (Original) The apparatus of claim 11, wherein the means for computing uses quantum electrodynamics.

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Claim 13 (Original) The apparatus of claim 12, wherein the means for computing partitions the interference pattern and represents each partition as a weighted sum of basis interference patterns.

Claim 14 (Canceled)